

IN THE CLAIMS:

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

Claim 1. (Currently Amended) An image processing apparatus for input print data of page description language comprising:

first coding coded representation generation means for performing coding by analyzing the print data of page description language and generating band coded representations in a unit of band having a predetermined height;

first decoding rendering means for decoding data coded by said first coding means into rendering bitmap data in a unit of band based on the band coded representations;

memory means for storing the bitmap data for one band decoded rendered by said first decoding rendering means;

second coding means for selecting a coding method from plural coding methods and encoding the bitmap data stored in said memory means by [[a]] the selected coding method selected from plural coding methods; and

second decoding means for selecting and performing a first decoding method capable of decoding the bitmap data coded by said coding means and transferring the decoded bitmap data decoded by the decoding means to a printer engine in realtime, or selecting and performing a second decoding method which needs to render the decoded bitmap data decoded by the decoding means into a work memory before transferring the decoded bitmap data decoded

by the decoding means to the printer engine, in accordance with the coding method selected by said second coding means,

wherein ~~before coding is performed by said first coding means~~, a decoding method performed by said second decoding means is predicted on the basis of the analysis result by said coded representation generation means, and if the predicted decoding method is the second decoding method, the band height is reduced to half of that in case of the first decoding method.

Claims 2 - 11. (Canceled)

Claim 12. (Currently Amended) The image processing apparatus according to claim 1, further comprising ~~coded-representation-forming~~ coded representation generation means for converting input image data in page description language into coded representation including at least one of a bitmap object, a run length object, a trapezoidal object, a box object, and a fixed-boundary code object.

Claim 13. (Currently Amended) The image processing apparatus according to claim 1, further comprising image-type discrimination means for discriminating an image type of image data,

wherein said second coding means selects, from plural coding methods, a coding method corresponding to the image type discriminated by said image-type discrimination means, and performs coding by the selected coding method.

Claim 14. (Currently Amended) An image processing method for input print data of page description language comprising:

a first coding coded representation generation step of performing coding by analyzing the print data of page description language and generating band coded representations in a unit of band having a predetermined height;

a first decoding rendering step of decoding data coded in said first coding step into rendering bitmap data in a unit of band based on the band coded representations;

a storing step of storing the bitmap data for one band decoded rendered in said first decoding rendering step;

a second coding step for selecting a coding method from plural coding methods and of encoding the bitmap data stored in said storing step by [[a]] the selected coding method selected from plural coding methods; and

a second decoding step of selecting and performing a first decoding method capable of decoding the bitmat data coded in said coding step and transferring the decoded bitmap data decoded in said decoding step to a printer engine in realtime, or selecting and performing a second decoding method which needs to render the decoded bitmap data decoded in said decoding step into a work memory before transferring the decoded bitmap data decoded in said decoding step to the printer engine, in accordance with the coding method selected in said second coding step,

wherein before coding is performed in said first coding step, a decoding method performed in said second decoding step is predicted on the basis of the analysis result of

said coded representation generation step, and if the predicted decoding method is the second decoding method, the band height is reduced to half of that in case of the first decoding step.

Claim 15. (Currently Amended) The image processing method according to claim 14, further comprising a coded-representation forming coded representation generation step of converting input image data in page description language into coded representation including at least one of a bitmap object, a run length object, a trapezoidal object, a box object, and a fixed-boundary code object.

Claim 16. (Currently Amended) The image processing method according to claim 14, further comprising an image-type discrimination step of discriminating an image type of image data,

wherein said second coding step includes selecting, from plural coding methods, a coding method corresponding to the image type discriminated in said image-type discrimination step, and performing coding by the selected coding method.